Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

NEW MARINE MOLLUSKS.

BY EDWARD G. VANATTA.

The species herein described were encountered in determining material for the collection of the Academy of Natural Sciences of Philadelphia.

Haminea zanzibarica n. sp. Pl. V, fig. 12.

Shell large, subglobose, thin, shining, translucent, pinkish white, slightly orange-tinted at the vertex and the base. The surface is covered with very close microscopic wavy spiral striæ, longitudinally irregularly coarsely wrinkled, sometimes with several angular spiral ridges caused by spiral malleation. Vertex impressed, imperforate, whitened by an internal thickening of the shell. The aperture is narrow above, ample below. The right lip rises from the left side of the apical depression. Parietal callus very thin. The columellar lip is evenly concave, broadly reflexed, and the edge is not adnate except at the upper end, forming a crescent-shaped free plate over the axial region.

Alt. 20, diam. 14 mm.

Alt. 21, diam. 15.5 mm.

Locality.—Zanzibar.

The type is in the collection of the Academy of Natural Sciences of Philadelphia, No. 57,552.

This species may easily be distinguished from *H. zelandiæ* Gray by its less globular form, less convex parietal wall and the microscopic waved spiral striæ and free edge of the columellar callus. This species is larger than *H. natalensis* Krauss, and the right lip does not rise so high above the vertex. The spiral malleation is similar to that of *Limnæa palustris.*

Haminea succinea var. **solidior** n. Pl. V, fig. 8.

Shell solid, imperforate, finely wave striate, color waxen white.

This variety may be easily distinguished from the typical *H. succinea* Conr. by being heavier and smaller.

Alt. 7, diam. 3 mm.

Locality.—St. Martin and St. Bartholomew, West Indies, and Progreso, Yucatan.

The type is in the collection of the Academy of Natural Sciences of Philadelphia, No. 57,900, collected by Dr. B. Sharp at St. Martin.

Atys sharpi n. sp. Pl. V, fig. 9.

Shell small, subcylindrical, solid, porcellanous, glossy, translucent bluish white, very finely spirally striate, striæ strongest above and below. Apex with an extremely small perforation. Base umbilicate. Aperture narrow above, broader below. The lip rises from the right side of the apical perforation and describes a more or less even arc above without the twist so common in this genus; the outer lip descends in a gentle curve and the basal lip is arcuate. The columella is concave with a slight twist.

Alt. 7.84, diam. 3.8 mm.

Locality.—St. Martin, West Indies.

Types in the collection of the Academy of Natural Sciences of Philadelphia, No. 60,735, collected by Dr. B. Sharp.

This species is easily recognized by the lack of a twist on the evenly curved upper part of the lip.

Tornatina bermudensis n. sp. Pl. V, figs. 6, 7.

Shell small, cylindrical, porcellanous, shining bluish white, smooth. The spire is composed of about three whorls, the first being turned up forms a large tubercle, the other two are round-shouldered. The suture is a very slightly impressed canal, body whorl descending in front. The aperture is nearly four-fifths the entire length of the shell, narrow above and broader below, upper part of aperture with a deep wide sutural notch, parietal wall and columella covered by a very heavy callus, no columellar fold. The base is squarely truncate and receding.

Alt. 2.87, diam. 1.41 mm.

Locality.—Bermuda.

Type in the collection of the Academy of Natural Sciences of Philadelphia, No. 70,160, collected by Prof. Angelo Heilprin.

This species may be distinguished from *T. canaliculata* and *T. decurrens* V. and B. by its heavy parietal callus and the lack of a columellar fold.

Lucina (Divaricella) dalliana n. sp. Pl. V, figs. 10, 11.

Shell almost circular, somewhat truncate posteriorly; nearly equilateral, moderately convex, shining white, porcellanous, surface sculpture divaricate; in full-grown examples there is a smooth band where the diverging lines would meet. The beaks are slightly raised above the hinge line, directed forward and located hardly in advance of the centre; they are sculptured with microscopic concentric striæ only which are worn off in the largest specimen we have. The lunule is about one-eighth the length of the shell The anterior area under the lunule is not distinctly marked. The groove of the ligament is long and narrow. The margin has the interior layer very finely crenulate, but the outer layer smooth. The hinge of the right valve is provided with a heavy cardinal tooth with a pit on each side, and a single tubercular anterior and posterior lateral, the posterior one being about twice as far from the beak as the anterior one. The muscle scars are of moderate size, the anterior one being long and narrow, while the posterior one is more elliptical.

Alt. 19, diam. 20, thickness of right valve 4.5 mm.

Alt. 21, diam. 22.5, thickness of right valve 5.5 mm.

Locality.—In ballast from South Africa.

Types in the collection of the Academy of Natural Sciences of Philadelphia, No. 79,380, collected by Mr. J. G. Malone.

This species is distinguished from *L. dentata* Wood by not having the outer layer of the margin heavily dentate; from *L. cumingii* A. and A. in having the diverging sculpture extending across the anterior area to the lunule, and the inner layer of the margin is crenulate; from *L. quadrisulcata* Orb. in having a smooth band where the diverging lines would meet in full-grown examples; from *L. huttoniana* n. sp. in having the inner layer of the margin crenulate, and in the smooth band.

Lucina (Divaricella) huttoniana n. sp. Pl. V, figs. 14, 15.

Shell almost circular, posterior extremity squarely truncate, nearly equilateral, bluish white with white concentric streaks, glossy, porcellanous, surface sculpture divaricate, the diverging sculpture extending to the edge of the comparatively broad anterior area below the lunule. The beaks are slightly raised above the hinge line, directed forward, located slightly in advance of the centre, sculptured with rather coarse close concentric costellæ only. The lunule is very narrow, beginning as a broad impression under the beak and tapers forward, ending in a shallow point just above the anterior lateral tooth of the hinge. The anterior area under the lunule is strongly defined by the termination of the diverging lines, and is sculptured with irregular rough concentric striæ with more or less yellow epidermis in the interstices. The groove of the ligament is bounded on the inner side by a ridge which begins as an angle near the beak and gradually becomes higher to a point about four millimeters from the end of the hinge line, then suddenly descends almost to the end of the hinge line. The inner margin of the shell is smooth, neither layer being crenulate. The hinge of the right valve has a large heavy cardinal tooth in the centre, with a deep pit on each side and a smaller cardinal in front directed forward. The anterior lateral is a large tubercle with a deep chink where the adductor muscle truncates it; there is scarcely any trace of a tubercle at the posterior end of the hinge. The left valve has the pits for the corresponding cardinals of the right valve and a rather large posterior cardinal, an anterior lateral like the other valve and no posterior lateral. The anterior adductor muscle scar is very long and narrow, while the posterior scar is short oval.

Alt. 29.5, diam. 32, thickness of right valve 8 mm.

Locality.—Auckland, New Zealand.

Types in the collection of the Academy of Natural Sciences of Philadelphia, No. 63,758.

This species differs from *L. dentata* Wood in lacking the dentate margin, from *L. quadrisulcata* Orb. in lacking the crenulate margin. It is distinguished from *L. cumingii* Ad. and Ang. by having a long narrow lunule, more delicate texture and lower beaks; it is also much less globose.

Venus (Anomalocardia) malonei n. sp. Pl. V, figs. 4, 5.

Shell triangular, posteriorly rostrate, moderately convex, longer than high, solid. The color is variable: some specimens are creamy white with irregular transverse zigzag brown spots or stripes, some are almost entirely dark brown, and others are light brown with a few very light radial bands and dark-brown blotches. The interior is generally purple, shading into a white margin with a brown band within the pallial line, but some lack the white margin. Sculpture both concentric and radial. The radial ribs predominate at each end, while the concentric sculpture is strongest in the middle of the valve. Anteriorly the first eight radial ribs are prominent and densely granulose; the median portions of the valves are regularly concentrically costate and radially ribbed, with finer closely packed costæ prominent in the interstices; the concentric costæ are cut into even granules by the crossing radial costæ; at the posterior angle of the valve there are about five or six prominent heavy squamose radial ribs; from this point the radial ribs predominate, and gradually become finer to the posterior margin. Beaks prominent, directed forward, smooth, except a few concentric growth lines. Lunule impressed, a little convex, narrow, about one-fourth the length of the shell, generally of a darker color than the rest of the shell and provided with six or eight longitudinal granulose ribs. The groove of the ligament is linear, tapering at the extremities. The margin is dorsally quite evenly arcuate; rounded anteriorly, a trifle convex at the lunule; evenly arcuate ventrally; posterior obliquely truncate, with a very blunt obtuse angle near the centre. The margin is very finely crenulate; beginning at the anterior side of the beak it is minutely crenulate along the edge of the lunule, becoming coarser ventrally, then gradually becoming finer, and ends abruptly at the posterior end of the ligament. The hinge is broad under the convex lunule, narrower posteriorly, with three teeth in each valve. The right valve has the anterior tooth small, lamellar and nearly parallel with lunule; the middle tooth is triangular and directed forward, its posterior end is nearly vertical, while the anterior end is oblique and almost parallel to the anterior tooth; posterior tooth large, about the size of the triangular central, slightly bifid or grooved at the summit, directed backward. The left valve is three-toothed, anterior tooth lamellar, higher than the rest, directed forward; central nearly lamellar, vertical, with a bifid or grooved summit; posterior small, lamellar, directed obliquely backward, with a pointed summit. The adductor muscle scars of nearly equal size, pallial line evenly arched, with a moderately deep pallial sinus. Alt. 15, diam. 21, diam. 9 mm.

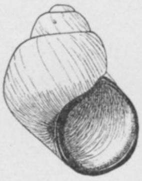
Locality.—In ballast from South Africa.

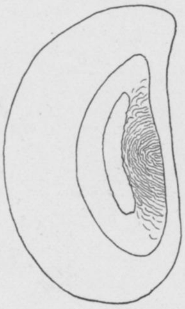
Types in collection of the Academy of Natural Sciences of Philadelphia, No. 79,395, collected by Mr. J. G. Malone.

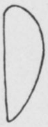
This species differs from *V. squamosa* Linn. by being smaller and less rostrate, also in having a predominance of concentric sculpture in the median portion of the valve; the posterior end radially closely ribbed, narrower lunule and much finer crenulation of the ventral margin. The crenulation of the margins inside is much like *V. marica.*

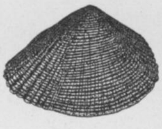
EXPLANATION OF PLATE V.

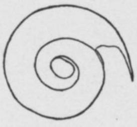
Fig. 1.—*Vivipara henzadensis* Pils., p. 188.
Fig. 2.—*Ampullaria winkleyi* Pils., p. 189.
Fig. 3.—*Ampullaria winkleyi*, operculum.
Figs. 4, 5.—*Venus malonei* Van., p. 185.
Figs. 6, 7.—*Tornatina bermudensis* Van., p. 183.
Fig. 8.—*Haminea succinea* var. *solidior* Van., p. 182.
Fig. 9.—*Atys sharpi* Van., p. 183.
Figs. 10, 11.—*Lucina* (*Divaricella*) *dalliana* Van., p. 184.
Fig. 12.—*Haminea zanzibarica* Van., p. 182.
Fig. 13.—*Fossarus capensis* Pils., p. 190.
Figs. 14, 15.—*Lucina* (*Divaricella*) *huttoniana* Van., p. 184.

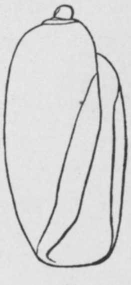

1

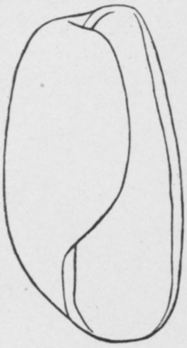

3

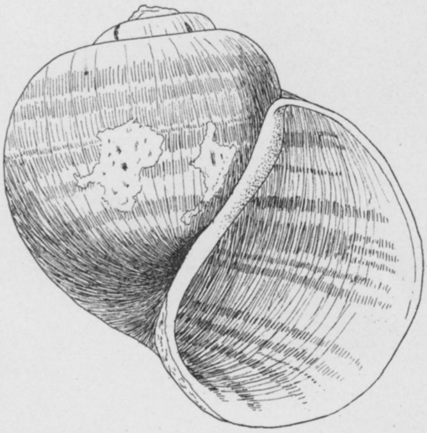

4

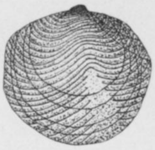

5

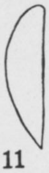

6

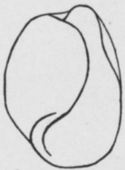

7

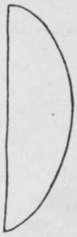

8

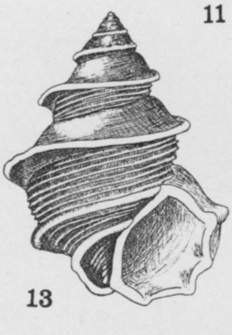

2

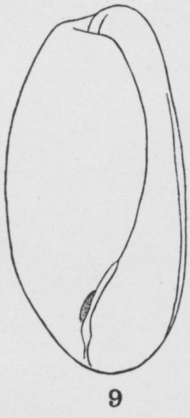

10

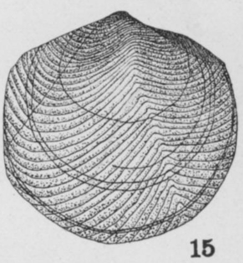

11


12


14


13


9


15

VANATTA. NEW MARINE MOLLUSKS.
PILSBRY. NEW MOLLUSKS.